

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of displaying ~~a number of a stored image of a~~ anatomical feature and at least one computer-detected regions of pathological interest of an anatomical feature, the method comprising:
 - displaying an image of the anatomical feature;
 - simultaneously displaying with the image at least one uniquely identified marker corresponding to each of at least one computer-detected region of pathological interest;
 - displaying a first indication associated with each marker indicative of the probability that the region of the pathological interest is cancerous; ~~and~~
 - displaying a second indication associated with each marker indicative of a classification of the region of pathological interest;
 - receiving a user input command related to at least one of the uniquely identified markers;
 - modifying the visual appearance of at least one of the uniquely identified markers according to the received user input command; and
 - saving the uniquely identified markers in the stored image.
2. (Cancelled)
3. (Previously Presented) The method of claim 1, wherein the probability of cancer for each region of pathological interest is determined by a computer-implemented detection algorithm.
- 4-9. (Cancelled)
10. (Currently Amended) A method of interactively displaying a number of unique locations of pathological interest of an anatomical feature, the method comprising:

displaying an image of the anatomical feature the image being of a diagnostic quality;
simultaneously displaying with the image a uniquely identified marker corresponding
to each location of pathological interest as determined by a computer algorithm;
receiving a first user-input command that selects one of the uniquely identified
markers for classification;
displaying a menu of user-selectable classification alternatives in response to the first
user-input command, the classification alternatives representing physiological assessments of
the region of pathological interest;
receiving a second user-input command that selects one of the user-selectable
classification alternatives; ~~and~~
modifying the visual appearance of the displayed marker in response to the
classification alternative selected by the second user-input command;
saving the displayed uniquely identified marker with the image of the anatomical
feature.

11. (Previously Presented) The method of claim 10, wherein each marker is uniquely
identified by an alphanumeric label adjacent to the marker.

12-13. (Cancelled)

14. (Original) The method of claim 10, wherein modifying the visual appearance of the
displayed marker in response to the classification alternative selected by the second user-
input comprises changing the color of the displayed marker.

15. (Cancelled)

16. (Currently Amended) A system for displaying a number of unique locations of
pathological interest of an anatomical feature detected by a computer-implemented detection
algorithm, the system comprising:

storage media including an image of the anatomical feature and the locations of pathological interest of the anatomical feature detected by the computer-implemented detection algorithm;

a processor coupled to the storage media and operable to generate a uniquely identified marker corresponding to each computer-detected region of pathological interest, wherein each marker visually displays classification data entered by a user;

a display coupled to the processor and configured to simultaneously display the image of the anatomical feature and each marker; and

a user-input device coupled to the processor and operable to receive a selection of one of the markers and a selection of classification data

wherein upon the receipt of the selection of one of the markers and the selection of classification data, the processor modifies the visual display of the marker and states an image file comprising the image of the anatomical feature and the uniquely identified markers on the storage media.

17. (Cancelled)

18. (Currently Amended) The system of claim 16, wherein each marker is configured to be electronically stored in the same image layer as the image of the anatomical feature in the storage media.

19. (Cancelled)

20. (Currently Amended) The system of claim 21, wherein the viewable classification data entered includes a user-determined classification of the computer-detected region as a false-positive detection.

21-22. (Cancelled)

23. (Original) The system of claim 16, wherein the computer-implemented detection algorithm determines a probability of cancer for each region of pathological interest.

24. (Currently Amended) The system of claim 23, wherein each marker visually indicates the probability of cancer determined by the computer-implemented detection algorithm.

25. (Original) The system of claim 24, wherein the color of each marker visually indicates the probability of cancer determined by the computer-implemented detection algorithm.

26. (Currently Amended) A marker for use with a graphical user interface for uniquely identifying a location of pathological interest, the marker comprising:

a unique identifier for the location of pathological interest;

a visual indication of the probability of cancer for the location of pathological interest;

and

a visual indication of a classification of the location of pathological interest; and data based on user input

wherein at least one fo the visual indications is modified based on user input and the modified marker is configured to be saved in association with an image of an anatomical feature.

27. (Previously Presented) The marker of claim 26, wherein the unique identifier comprises an alphanumeric label adjacent to the marker.

28. (Cancelled)

29. (Previously Presented) The marker of claim 26, wherein the classification data includes a user selection of the classification data from an electronically displayed menu of alternative classifications.

30. (Cancelled)

31. (Previously Presented) The marker of claim 29, wherein the viewable classification data includes a user-determined classification of the region as a false-positive detection.

32. (Previously Presented) The marker of claim 29, wherein the viewable classification data includes a user-determined classification of the region as a cyst.

33. (Previously Presented) The marker of claim 29, wherein the viewable classification data includes a user-determined classification of the region as a nodule.

34. (Previously Presented) The marker of claim 29, wherein the viewable classification data includes a user-determined classification of the region as a microcalcification.

35. (Cancelled)

36. (Previously Presented) The method of claim 1 wherein the classification of the region of pathological interest is a physiological assessment of the region of pathological interest.

37. (Previously Presented) The method of claim 36 wherein the second indication comprises the shape of each marker visually indicating the classification of the region of pathological interest.

38. (Previously Presented) The method of claim 10 wherein the menu comprises the classification alternatives of: microcalcification, nodule, and cyst.

39. (Previously Presented) The method of claim 10 wherein the step of modifying the visual appearance of the displayed marker comprises changing the shape of the marker.

40. (Previously Presented) The method of claim 10 wherein the step of modifying the visual appearance of the displayed marker comprises adding an alphanumeric indicator to the marker.

41. (Previously Presented) The system of claim 21, wherein the menu of alternative classifications comprises at least one physiological assessment of the location of pathological interest.

42. (Previously Presented) The system of claim 41, wherein the processor modifies the color of the marker in response to receipt of a selection of a physiological assessment of the location of pathological interest.

43-46. (Cancelled)

47. (New) The method of claim 1 further comprising transmitting the stored image file with the saved markers to a remote location.

48. (New) The method of claim 48 wherein the image is of a quality such that the image may be the basis of a diagnostic analysis by a clinician.

49. (New) The method of claim 10 further comprising transmitting the saved image file to a remote location.

50. (New) The system of claim 16 wherein the processor is configured to open the stored image file of the anatomical image and the uniquely identified markers such that a clinician may use the processor to open the file and view the image and the markers on the display.

51. (New) The system of claim 16 further comprising a transmitter such that the stored image file of the anatomical feature and the markers may be transmitted as a single file to a remote location.

52. (New) The marker of claim 26 wherein the marker is configured to be saved as a portion of the associated image of an anatomical feature.

53. (New) The method of claim 1 further comprising the step of saving the modified uniquely identified markers in the stored image.

54. (New) The method of claim 10 further comprising the step of saving the modified uniquely identified markers in the image of the anatomical feature.